

**IN THE UNITED STATES DISTRICT COURT
FOR THE NORTHERN DISTRICT OF ILLINOIS
EASTERN DIVISION**

INNOVATIO IP VENTURES, LLC,

Plaintiff,

v.

QUANTENNA COMMUNICATIONS,
INC.,

Defendant.

Case No. 16-cv-9452

JURY DEMAND

INNOVATIO’S COMPLAINT FOR PATENT INFRINGEMENT

Plaintiff Innovatio IP Ventures, LLC (“Innovatio”), by and through its counsel, complains of Defendant Quantenna Communications, Inc. (“Quantenna”) as follows:

THE PARTIES

1. Innovatio is a limited liability company organized under the laws of the State of Delaware with a place of business at 22 West Washington Street, Suite 1500, Chicago, Illinois 60602.

2. On information and belief, Quantenna is a corporation organized under the Laws of the State Delaware with its principal place of business at 3450 W Warren Ave, Fremont, CA 94538.

JURISDICTION AND VENUE

3. This action arises under the Patent Laws of the United States, 35 U.S.C. § 1 *et seq.* The Northern District of Illinois has jurisdiction over the subject matter of this action under 28 U.S.C. §§ 1331 and 1338(a).

4. The Northern District of Illinois has personal jurisdiction over Quantenna.

5. Venue for this action is proper in the Northern District of Illinois pursuant to 28

U.S.C. §§ 1391 and 1400(b).

PATENTS-IN-SUIT

6. On February 24, 2004, the USPTO duly and legally issued U.S. Patent No. 6,697,415 (“the ’415 Patent”) titled “Spread Spectrum Transceiver Module Utilizing Multiple Mode Transmission.” A copy of the ’415 Patent is attached as Exhibit A.

7. On December 1, 1998, the USPTO duly and legally issued U.S. Patent No. 5,844,893 (“the ’893 Patent”) titled “System for Coupling Host Computer Means with Base Transceiver Units On a Local Area Network.” A copy of the ’893 Patent is attached as Exhibit B.

8. On April 14, 1998, the USPTO duly and legally issued U.S. Patent No. 5,740,366 (“the ’366 Patent”) titled “Communication Network Having Plurality Of Bridging Nodes Which Transmit A Beacon To Terminal Nodes In Power Saving State That It Has Messages Awaiting Delivery.” A copy of the ’366 Patent is attached as Exhibit C.

9. On December 16, 2003, the USPTO duly and legally issued U.S. Patent No. 6,665,536 (“the ’536 Patent”) titled “Local Area Network Having Multiple Channel Wireless Access.” A copy of the ’536 Patent is attached as Exhibit D.

10. On March 14, 2006, the USPTO duly and legally issued U.S. Patent No. 7,013,138 (“the ’138 Patent”) titled “Local Area Network Having Multiple Channel Wireless Access.” A copy of the ’138 Patent is attached as Exhibit E.

11. On September 12, 2006, the USPTO duly and legally issued U.S. Patent No. 7,107,052 (“the ’052 Patent”) titled “Local Area Network Having Multiple Channel Wireless Access.” A copy of the ’052 Patent is attached as Exhibit F.

12. On August 13, 1996, the United States Patent and Trademark Office (“USPTO”)

duly and legally issued U.S. Patent No. 5,546,397 (“the ’397 Patent”) titled “High Reliability Access Point For Wireless Local Area Network.” A copy of the ’397 Patent is attached as Exhibit G.

13. On May 4, 2010, the USPTO duly and legally issued U.S. Patent No. 7,710,907 (“the ’907 Patent”) titled “Local Area Network Having Multiple Channel Wireless Access.” A copy of the ’907 Patent is attached as Exhibit H.

14. On May 4, 2010, the USPTO duly and legally issued U.S. Patent No. 7,710,935 (“the ’935 Patent”) titled “Local Area Network Having Multiple Channel Wireless Access.” A copy of the ’935 Patent is attached as Exhibit I.

15. The nine patents referred to in Paragraphs 6-14 above will be referred to collectively as the “Patents-in-Suit.”

16. Innovatio owns all rights, title, and interest in and to, and has standing to sue for infringement of, the Patents-in-Suit, including the right to sue for and collect past damages.

PAST LITIGATION INVOLVING THE PATENTS-IN-SUIT

17. Since March 2011, Innovatio has asserted the Patents-in-Suit, and other patents owned by Innovatio, in several actions for patent infringement involving hundreds of parties. *See, e.g., Innovatio IP Ventures, LLC v. ABP Corporation, et al.*, Case No. 11-cv-1638 (N.D. Ill.) (filed March 8, 2011) (the “Original Action”); *Innovatio IP Ventures, LLC v. B&B Holdings, Inc.*, Case No. 11-cv-1325 (M.D. Fla.) (filed May 13, 2011); *Innovatio IP Ventures, LLC v. MEI- GSR Holdings LLC*, Case No. 11-cv-343 (D. Nev.) (filed May 13, 2011); *Innovatio IP Ventures, LLC v. Best Western River North Hotel, L.L.C., et al.*, Case No. 11-cv-4668 (N.D. Ill.) (filed July 11, 2011); *Innovatio IP Ventures, LLC v. Hyatt Corporation, et al.*, Case No. 11-cv-6145 (N.D. Ill.) (filed September 2, 2011); *Innovatio IP Ventures, LLC v. JW Marriott Chicago, et al.*, Case No.

11-cv-6478 (N.D. Ill.) (filed September 15, 2011); *Innovatio IP Ventures, LLC v. Wingate by Wyndham Schaumburg, et al.*, Case No. 11-cv-6479 (N.D. Ill.) (filed September 15, 2011); *Innovatio IP Ventures, LLC v. Comfort Inn O'Hare, et al.*, Case No. 11-cv-6481 (N.D. Ill.) (filed September 16, 2011); *Innovatio IP Ventures, LLC v. Best Western Arrowhead, et al.*, Case No. 11-cv-00643 (W.D. Wis.) (filed September 19, 2011); *Innovatio IP Ventures, LLC v. Madison Marriott West, et al.*, Case No. 11-cv-00644 (W.D. Wis.) (filed September 19, 2011); *Innovatio IP Ventures, LLC v. AirTran Airways, Inc.*, Case No. 12-cv-3844 (N.D. Ill.) (filed May 17, 2012); *Innovatio IP Ventures, LLC v. Barnes & Noble, Inc.*, Case No. 12-cv-3856 (N.D. Ill.) (filed May 18, 2012); *Innovatio IP Ventures, LLC v. Delta Air Lines, Inc.*, Case No. 12-cv-3858 (N.D. Ill.) (filed May 18, 2012); *Innovatio IP Ventures, LLC v. The Home Depot, Inc.*, Case No. 12-cv-3860 (N.D. Ill.) (filed May 18, 2012); *Innovatio IP Ventures, LLC v. HVM L.L.C.*, Case No. 12-cv-3862 (N.D. Ill.) (filed May 18, 2012); *Innovatio IP Ventures, LLC v. Jewel Food Stores, Inc.*, Case No. 12-cv-3865 (N.D. Ill.) (filed May 18, 2012); *Innovatio IP Ventures, LLC v. Lowe's Companies, Inc.*, Case No. 12-cv-3866 (N.D. Ill.) (filed May 18, 2012); *Innovatio IP Ventures, LLC v. HVM L.L.C.*, Case No. 12-cv-3862 (N.D. Ill.) (filed May 18, 2012); *Innovatio IP Ventures, LLC v. McDonald's Corporation*, Case No. 12-cv-3870 (N.D. Ill.) (filed May 18, 2012); *Innovatio IP Ventures, LLC v. Starbucks Corporation*, Case No. 12-cv-3872 (N.D. Ill.) (filed May 18, 2012); *Innovatio IP Ventures, LLC v. United Parcel Service, Inc.*, Case No. 12-cv-3874 (N.D. Ill.) (filed May 18, 2012); *Innovatio IP Ventures, LLC v. Wal-Mart Stores, Inc.*, Case No. 12-cv-3878 (N.D. Ill.) (filed May 18, 2012); *Innovatio IP Ventures, LLC v. FedEx Corporation, et al.*, Case No. 12-cv-3882 (N.D. Ill.) (filed May 18, 2012); *Innovatio IP Ventures, LLC v. Realtek Semiconductor Corporation*, Case No. 15-cv-2269 (N.D. Ill.) (filed March 16, 2015); *Innovatio IP Ventures, LLC v. MediaTek USA Inc.*, Case No. 15-cv-2262 (N.D. Ill.) (filed March

16, 2015); and *Innovatio IP Ventures, LLC v. Marvell Semiconductor Inc.*, Case No. 15-cv-2259 (N.D. Ill.) (filed March 16, 2015). (The actions referred to in this paragraph 17 will be collectively called the “Infringement Actions.”)

18. Since May 13, 2011, five major suppliers of wireless local area network equipment (“802.11-compliant” or “Wi-Fi”) (collectively, the “Manufacturers”) have filed declaratory judgment actions against Innovatio, which actions initially involved, or subsequently came to involve, the Manufacturers’ claims for declarations of invalidity and noninfringement of the Patents-in-Suit, plus other patents owned by Innovatio, as well as Innovatio’s counterclaims and cross-claims for infringement of the Patents-in-Suit and other patents. *See, e.g., Cisco Systems, Inc. and Motorola Solutions, Inc. v. Innovatio IP Ventures, LLC*, Case No. 11-cv-425 (D. Del.) (filed May 13, 2011); *SonicWALL, Inc. v. Innovatio IP Ventures, LLC*, Case No. 11-cv-920 (D. Del.) (filed October 7, 2011); *NETGEAR, Inc. v. Innovatio IP Ventures, LLC*, 11-cv-1139 (D. Del.) (filed November 16, 2011); *Hewlett-Packard Co. v. Innovatio IP Ventures, LLC*, 12-cv-1076 (N.D. Cal.) (filed March 2, 2012). (The actions referred to in this paragraph 18 are collectively called the “Declaratory Judgment Actions.”)

19. Under a December 28, 2011 transfer order by the United States Judicial Panel on Multidistrict Litigation (the “JPML”) and subsequent motion practice before and orders of the JPML, as well as subsequent procedural orders of the Northern District of Illinois, the other Infringement Actions and the Declaratory Judgment Actions were transferred to the Northern District of Illinois for consolidated pretrial proceedings with the Original Action (the “Consolidated Litigation”).

20. The Original Action, the Infringement Actions, the Declaratory Judgment Actions, and the Consolidated Litigation have been widely known, discussed, and publicized in

the wireless industry, in legal publications, and online.

21. Before and during the Original Action, the other Infringement Actions, the Declaratory Judgment Actions, and the Consolidated Litigation, Innovatio sent numerous notice letters to entities that make, use, sell, and/or offer for sale Wi-Fi technology, which notice letters advised such entities of Innovatio's infringement assertions with respect to the Patents-in-Suit and other patents owned by Innovatio, and which notice letters offered to grant such entities licenses to the Patents-in-Suit and other patents owned by Innovatio.

22. On July 26, 2013, the Northern District of Illinois determined that all of the patent claims Innovatio asserted in the Consolidated Litigation are "Essential Patent Claims" with respect to the 802.11 IEEE Standard, meaning that the use of all such claims is necessary to create a compliant implementation of either mandatory or optional portions of the normative clauses of the standard (the "Essentiality Ruling"). *See, e.g., In re Innovatio IP Ventures, LLC, Patent Litigation*, Case No. 11-cv-9308 (N.D. Ill.) (Holderman, J.), Dkt. No. 851.

23. The Essentiality Ruling was widely known, discussed, and publicized in the wireless industry, in legal publications, and online.

24. On October 3, 2013, the Northern District of Illinois determined that the RAND rate to be paid to Innovatio for the licensing of nineteen of its standard-essential patents is 9.56 cents for each Wi-Fi chip (the "RAND Ruling"). *See, e.g., In re Innovatio IP Ventures, LLC, Patent Litigation*, Case No. 11-cv-9308 (N.D. Ill.) (Holderman, J.), Dkt. No. 975 at 88.

25. Each of the Patents-in-Suit in this Complaint was included in the nineteen patents that formed the basis of the RAND Ruling.

26. In its RAND Ruling, the Northern District of Illinois stated that "[b]ecause the purpose of a Wi-Fi chip is, by definition, to provide 802.11 functionality, determining the

importance of Innovatio's patents to the 802.11 standard also determines the importance of Innovatio's patents to the Wi-Fi chip." *See, e.g., Id.* at 13.

27. In its RAND Ruling, the Northern District of Illinois further stated that "all of the instructions to the various devices mentioned in the claims of Innovatio's patents that operate Wi-Fi are included on the chip." *See, e.g., Id.*

28. In its RAND Ruling, the Northern District of Illinois further stated that "the appropriate royalty base in this case is the Wi-Fi chip, the small module that provides Wi-Fi capability to electronic devices in which it is inserted." *See, e.g., Id.* at 25.

29. In its RAND Ruling, the Northern District of Illinois determined that "Innovatio's patents are in the top 10% of all 802.11 standard-essential patents." *See, e.g., Id.* at 85.

30. In its RAND Ruling, the Northern District of Illinois determined that "Innovatio's patents are all of moderate to moderate-high importance to the standard, meaning that they provide significant value to the standard." *See, e.g., Id.*

31. In its RAND Ruling, the Northern District of Illinois stated that, in *Microsoft Corp. v. Motorola, Inc.*, No. 10-cv-1823 (W.D. Wash.), the district court "concluded that Motorola's patents were only of minimal value to the standard, . . . whereas the court here has found that Innovatio's patents are of moderate to moderate-high importance to the standard." *See, e.g., Id.* at 87.

32. The RAND Ruling was widely known, discussed, and publicized in the wireless industry, in legal publications, and online.

QUANTENNA'S 802.11-COMPLIANT OFFERINGS

33. Quantenna manufactures, offers for sale, sells and/or imports, among other things, 802.11-compliant products used in connection with wireless local area networks.

34. For example, Quantenna states that it “is a global leader and innovator of leading edge performace Wi-Fi solutions.” *See* <http://www.quantenna.com>. Quantenna’s 802.11-compliant offerings include, but are not limited to, the following chipsets: QHS710; QSR1000; QSR2000; and QSR10G. *See* <http://www.quantenna.com/products/#products>.

35. Quantenna’s offerings include 802.11-chips as described in the Northern District of Illinois’s Essentiality Ruling and RAND Ruling.

QUANTENNA’S KNOWLEDGE OF THE PATENTS-IN-SUIT

36. On information and belief, Quantenna has had actual knowledge of the Patents-in-Suit since at least as early as mid-2011, by which time litigation involving the Patents-in-Suit, Innovatio’s notice letters, and Innovatio’s licensing efforts were widely known.

37. On information and belief, Quantenna has had actual knowledge of Innovatio’s claims of the essentiality of the Patents-in-Suit to the 802.11 IEEE Standard since at least as early as mid- to late-2011, by which time news of the Patents-in-Suit, Innovatio’s notice letters, and Innovatio’s licensing efforts were widely known.

38. On information and belief, Quantenna has had actual knowledge of the Essentiality Ruling in the Northern District of Illinois Patents-in-Suit since at least as early as late July or early August 2013, by which time the Essentiality Ruling had been widely discussed and publicized in the wireless industry, in legal publications, and online and was widely known.

39. Quantenna has had actual knowledge and been on notice of Innovatio’s claims of patent infringement against Quantenna since, at the latest, on or about October 15, 2013, on which date Quantenna received a notice letter from Innovatio.

40. In its October 15, 2013 letter, in addition to notifying Quantenna of infringement, Innovatio offered to grant Quantenna a license to Innovatio’s Standard Essential Claims for any

compliant implementation of the 802.11 standard at the \$.0956 per chip rate set by the Northern District of Illinois.

41. Beginning no later than early 2014, Innovatio has communicated further with Quantenna representatives and counsel concerning Innovatio's proposed license.

42. The parties have not made any meaningful progress toward negotiating a license agreement; nor has Quantenna applied for, or otherwise requested, a license to Innovatio's Standard Essential Claims.

COUNT I – INFRINGEMENT OF U.S. PATENT NO. 6,697,415

43. Innovatio repeats and re-alleges the allegations in Paragraphs 1-42 as though fully set forth here.

44. Quantenna has infringed the '415 Patent, in violation of 35 U.S.C. § 271(a), by manufacturing, using, selling, offering for sale and/or importing 802.11-compliant products. These products infringed one or more claims of the '415 Patent, including but not limited to Claims 11, 12, and 15. Practicing each of those claims was necessary to create compliant implementations of mandatory or optional portions of the 802.11 standard.

45. On information and belief, Quantenna has also directly infringed the '415 Patent through its own use and testing of the 802.11-compliant products that practiced one or more claims of the '415 Patent.

46. On information and belief, Quantenna, with specific knowledge of the '415 Patent, induced or contributed to the direct infringement of the patent by others, including but not limited to Quantenna's customers and end-users, in violation of 35 U.S.C. § 271(b) and/or (c), by making available to Quantenna's customers 802.11-compliant products that are used by Quantenna's customers to obtain the benefit of and/or directly infringe one or more claims where any such

claim is necessary to create a compliant implementation of either mandatory or optional portions of the 802.11 standard.

47. On information and belief, Quantenna willfully infringed the '415 Patent. Quantenna acted knowingly or with reckless disregard or willful blindness despite an objectively high likelihood that its actions constituted infringement of Innovatio's patent rights.

48. As a result of Quantenna's infringement of the '415 Patent, Innovatio is entitled to monetary damages in an amount adequate to compensate for infringement, but in no event less than a reasonable royalty for the use made of the invention.

COUNT II – INFRINGEMENT OF U.S. PATENT NO. 5,844,893

49. Innovatio repeats and re-alleges the allegations in Paragraphs 1-48 as though fully set forth here.

50. Quantenna has infringed the '893 Patent, in violation of 35 U.S.C. § 271(a), by manufacturing, using, selling, offering for sale and/or importing 802.11-compliant products. These products infringed one or more claims of the '893 Patent, including but not limited to Claims 7 through 11. Practicing each of those claims was necessary to create compliant implementations of mandatory or optional portions of the 802.11 standard.

51. On information and belief, Quantenna has also directly infringed the '893 Patent through its own use and testing of the 802.11-compliant products that practice one or more claims of the '893 Patent.

52. On information and belief, Quantenna has, with specific knowledge of the '893 Patent, induced or contributed to the direct infringement of the patent by others, including but not limited to Quantenna's customers and end-users, in violation of 35 U.S.C. § 271(b) and/or (c), by making available to Quantenna's customers 802.11-compliant products that are used by

Quantenna's customers to obtain the benefit of and/or directly infringe one or more claims where any such claim is necessary to create a compliant implementation of either mandatory or optional portions of the 802.11 standard.

53. On information and belief, Quantenna willfully infringed the '893 Patent. Quantenna has acted knowingly or with reckless disregard or willful blindness despite an objectively high likelihood that its actions constitute infringement of Innovatio's patent rights.

54. As a result of Quantenna's infringement of the '893 Patent, Innovatio is entitled to monetary damages in an amount adequate to compensate for infringement, but in no event less than a reasonable royalty for the use made of the invention.

COUNT III – INFRINGEMENT OF U.S. PATENT NO. 5,740,366

55. Innovatio repeats and re-alleges the allegations in Paragraphs 1-54 as though fully set forth here.

56. Quantenna has infringed the '366 Patent, in violation of 35 U.S.C. § 271(a), by manufacturing, using, selling, offering for sale and/or importing 802.11-compliant products. These products infringed one or more claims of the '366 Patent, including but not limited to Claims 5 through 16. Practicing each of those claims was necessary to create compliant implementations of mandatory or optional portions of the 802.11 standard.

57. On information and belief, Quantenna has also directly infringed the '366 Patent through its own use and testing of the 802.11-compliant products that practice one or more claims of the '366 Patent.

58. On information and belief, Quantenna has, with specific knowledge of the '366 Patent, induced or contributed to the direct infringement of the patent by others, including but not limited to Quantenna's customers and end-users, in violation of 35 U.S.C. § 271(b) and/or (c), by

making available to Quantenna's customers 802.11-compliant products that are used by Quantenna's customers to obtain the benefit of and/or directly infringe one or more claims where any such claim is necessary to create a compliant implementation of either mandatory or optional portions of the 802.11 standard.

59. On information and belief, Quantenna willfully infringed the '366 Patent. Quantenna has acted knowingly or with reckless disregard or willful blindness despite an objectively high likelihood that its actions constitute infringement of Innovatio's patent rights.

60. As a result of Quantenna's infringement of the '366 Patent, Innovatio is entitled to monetary damages in an amount adequate to compensate for infringement, but in no event less than a reasonable royalty for the use made of the invention.

COUNT IV – INFRINGEMENT OF U.S. PATENT NO. 6,665,536

61. Innovatio repeats and re-alleges the allegations in Paragraphs 1-60 as though fully set forth here.

62. Quantenna has infringed the '536 Patent, in violation of 35 U.S.C. § 271(a), by manufacturing, using, selling, offering for sale and/or importing 802.11-compliant products. These products infringed one or more claims of the '536 Patent, including but not limited to Claim 1. Practicing that claim was necessary to create compliant implementations of mandatory or optional portions of the 802.11 standard.

63. On information and belief, Quantenna has also directly infringed the '536 Patent through its own use and testing of the 802.11-compliant products that practice one or more claims of the '536 Patent.

64. On information and belief, Quantenna has, with specific knowledge of the '536 Patent, induced or contributed to the direct infringement of the patent by others, including but not

limited to Quantenna's customers and end-users, in violation of 35 U.S.C. § 271(b) and/or (c), by making available to Quantenna's customers 802.11-compliant products that are used by Quantenna's customers to obtain the benefit of and/or directly infringe one or more claims where any such claim is necessary to create a compliant implementation of either mandatory or optional portions of the 802.11 standard.

65. On information and belief, Quantenna willfully infringed the '536 Patent. Quantenna has acted knowingly or with reckless disregard or willful blindness despite an objectively high likelihood that its actions constitute infringement of Innovatio's patent rights.

66. As a result of Quantenna's infringement of the '536 Patent, Innovatio is entitled to monetary damages in an amount adequate to compensate for infringement, but in no event less than a reasonable royalty for the use made of the invention.

COUNT V – INFRINGEMENT OF U.S. PATENT NO. 7,013,138

67. Innovatio repeats and re-alleges the allegations in Paragraphs 1-66 as though fully set forth here.

68. Quantenna has infringed the '138 Patent, in violation of 35 U.S.C. § 271(a), by manufacturing, using, selling, offering for sale and/or importing 802.11-compliant products. These products infringed one or more claims of the '138 Patent, including but not limited to Claim 1. Practicing that claim was necessary to create compliant implementations of mandatory or optional portions of the 802.11 standard.

69. On information and belief, Quantenna has also directly infringed the '138 Patent through its own use and testing of the 802.11-compliant products that practice one or more claims of the '138 Patent.

70. On information and belief, Quantenna has, with specific knowledge of the '138

Patent, induced or contributed to the direct infringement of the patent by others, including but not limited to Quantenna's customers and end-users, in violation of 35 U.S.C. § 271(b) and/or (c), by making available to Quantenna's customers 802.11-compliant products that are used by Quantenna's customers to obtain the benefit of and/or directly infringe one or more claims where any such claim is necessary to create a compliant implementation of either mandatory or optional portions of the 802.11 standard.

71. On information and belief, Quantenna has willfully infringed the '138 Patent. Quantenna has acted knowingly or with reckless disregard or willful blindness despite an objectively high likelihood that its actions constitute infringement of Innovatio's patent rights.

72. As a result of Quantenna's infringement of the '138 Patent, Innovatio is entitled to monetary damages in an amount adequate to compensate for infringement, but in no event less than a reasonable royalty for the use made of the invention.

COUNT VI – INFRINGEMENT OF U.S. PATENT NO. 7,107,052

73. Innovatio repeats and re-alleges the allegations in Paragraphs 1-72 as though fully set forth here.

74. Quantenna has infringed the '052 Patent, in violation of 35 U.S.C. § 271(a), by its manufacture, use, sale, offer for sale and/or importation of 802.11-compliant products. These products infringed one or more claims of the '052 Patent, including but not limited to Claim 1. Practicing that claim was necessary to create compliant implementations of mandatory or optional portions of the 802.11 standard.

75. On information and belief, Quantenna has also directly infringed the '052 Patent through its own use and testing of the 802.11-compliant products that practice one or more claims of the '052 Patent.

76. On information and belief, Quantenna has, with specific knowledge of the '052 Patent, induced or contributed to the direct infringement of the patent by others, including but not limited to Quantenna's customers and end-users, in violation of 35 U.S.C. § 271(b) and/or (c), by making available to Quantenna's customers 802.11-compliant products that are used by Quantenna's customers to obtain the benefit of and/or directly infringe one or more claims where any such claim is necessary to create a compliant implementation of either mandatory or optional portions of the 802.11 standard.

77. On information and belief, Quantenna willfully infringed the '052 Patent. Quantenna has acted knowingly or with reckless disregard or willful blindness despite an objectively high likelihood that its actions constitute infringement of Innovatio's patent rights.

78. As a result of Quantenna's infringement of the '052 patent, Innovatio is entitled to monetary damages in an amount adequate to compensate for infringement, but in no event less than a reasonable royalty for the use made of the invention.

COUNT VII – INFRINGEMENT OF U.S. PATENT NO. 7,483,397

79. Innovatio repeats and re-alleges the allegations in Paragraphs 1-78 as though fully set forth herein.

80. Quantenna has infringed the '397 Patent, in violation of 35 U.S.C. § 271(a), by manufacturing, using, selling, offering for sale and/or importing 802.11-compliant products. These products infringed one or more claims of the '397 Patent, including but not limited to Claim 1. Practicing that claim was necessary to create compliant implementations of mandatory or optional portions of the 802.11 standard.

81. On information and belief, Quantenna has also directly infringed the '397 Patent through its own use and testing of the 802.11-compliant products that practice one or more claims

of the '397 Patent.

82. On information and belief, Quantenna has, with specific knowledge of the '397 Patent, induced or contributed to the direct infringement of the patent by others, including but not limited to Quantenna's customers and end-users, in violation of 35 U.S.C. § 271(b) and/or (c), by making available to Quantenna's customers 802.11-compliant products that are used by Quantenna's customers to obtain the benefit of and/or directly infringe one or more claims where any such claim is necessary to create a compliant implementation of either mandatory or optional portions of the 802.11 standard.

83. On information and belief, Quantenna willfully infringed the '397 Patent. Quantenna has acted knowingly or with reckless disregard or willful blindness despite an objectively high likelihood that its actions constitute infringement of Innovatio's patent rights.

84. As a result of Quantenna's infringement of the '397 Patent, Innovatio is entitled to monetary damages in an amount adequate to compensate for infringement, but in no event less than a reasonable royalty for the use made of the invention.

COUNT VIII – INFRINGEMENT OF U.S. PATENT NO. 7,710,907

85. Innovatio repeats and re-alleges the allegations in Paragraphs 1-84 as though fully set forth here.

86. Quantenna has infringed the '907 Patent, in violation of 35 U.S.C. § 271(a), by manufacturing, using, selling, offering for sale and/or importing 802.11-compliant products. These products infringed one or more claims of the '397 Patent, including but not limited to Claim 1. Practicing that claim was necessary to create compliant implementations of mandatory or optional portions of the 802.11 standard.

87. On information and belief, Quantenna has also directly infringed the '907 Patent

through its own use and testing of the 802.11-compliant products that practice one or more claims of the '907 Patent.

88. On information and belief, Quantenna has, with specific knowledge of the '907 Patent, induced or contributed to the direct infringement by others, including but not limited to Quantenna's customers and end-users, in violation of 35 U.S.C. § 271(b) and/or (c), by making available to Quantenna's customers 802.11-compliant products that are used by Quantenna's customers to obtain the benefit of and/or directly infringe one or more claims where any such claim is necessary to create a compliant implementation of either mandatory or optional portions of the 802.11 standard.

89. On information and belief, Quantenna willfully infringed the '907 Patent. Quantenna has acted knowingly or with reckless disregard or willful blindness despite an objectively high likelihood that its actions constitute infringement of Innovatio's patent rights.

90. As a result of Quantenna's infringement of the '907 Patent, Innovatio is entitled to monetary damages in an amount adequate to compensate for infringement, but in no event less than a reasonable royalty for the use made of the invention.

COUNT IX – INFRINGEMENT OF U.S. PATENT NO. 7,710,935

91. Innovatio repeats and re-alleges the allegations in Paragraphs 1-90 as though fully set forth here.

92. Quantenna has infringed the '935 Patent, in violation of 35 U.S.C. § 271(a), by manufacturing, using, selling, offering for sale and/or importing 802.11-compliant products. These products infringed one or more claims of the '935 Patent, including but not limited to Claim 1. Practicing that claim was necessary to create compliant implementations of mandatory or optional portions of the 802.11 standard.

93. On information and belief, Quantenna has also directly infringed the '935 Patent through its own use and testing of the 802.11-compliant products that practice one or more claims of the '935 Patent.

94. On information and belief, Quantenna has, with specific knowledge of the '935 Patent, induced or contributed to the direct infringement of the patent by others, including but not limited to Quantenna's customers and end-users, in violation of 35 U.S.C. § 271(b) and/or (c), by making available to Quantenna's customers 802.11-compliant products that are used by Quantenna's customers to obtain the benefit of and/or directly infringe one or more claims where any such claim is necessary to create a compliant implementation of either mandatory or optional portions of the 802.11 standard.

95. On information and belief, Quantenna willfully infringed the '935 Patent. Quantenna has acted knowingly or with reckless disregard or willful blindness despite an objectively high likelihood that its actions constitute infringement of Innovatio's patent rights.

96. As a result of Quantenna's infringement of the '935 Patent, Innovatio is entitled to monetary damages in an amount adequate to compensate for infringement, but in no event less than a reasonable royalty for the use made of the invention.

PRAYER FOR RELIEF

WHEREFORE, Innovatio respectfully requests entry of judgment in its favor and the following relief from Quantenna:

A. That Quantenna be adjudged to have infringed one or more claims of each of the Patents-in-Suit, and that such infringement is willful;

B. That Quantenna account for, and Innovatio receive judgment for, damages sustained by Innovatio as a result of Quantenna's infringement of the Patents-in-Suit to the extent

that, and for such infringement as Innovatio elects to recover from Quantenna, including both pre- and post-judgment interest and costs as fixed by this Court under 35 U.S.C. § 284;

C. That Innovatio receives enhanced damages under 35 U.S.C. § 284;

D. That the Court award Innovatio its costs, expenses, and attorneys' fees under at least 35 U.S.C. § 285; and

E. That the Court grant Innovatio such other and further relief as the Court may deem just and proper.

Respectfully submitted,

Dated: October 3, 2016

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